

FATIGUE TEST FOR PROSTHETIC STENT

ABSTRACT OF THE DISCLOSURE

An improved method for testing a stent for a prosthetic valve includes applying
5 a load with a fluid against a stented test structure in a backward direction with the stented test structure substantially blocking the flow of the fluid. The stented test structure includes a stent and a flexible membrane extending within the lumen defined by the stent with the flexible membrane having a plurality of contours connecting to the stent along the scallops. A corresponding testing apparatus includes a cyclic pressure applicator, a conduit connected to
10 the cyclic pressure applicator, and a stented test structure mounted within the conduit to receive cyclic fluid pressures from the cyclic pressure applicator. The stented test structure includes a stent and a flexible membrane extending within the lumen defined by the stent. The flexible membrane substantially blocks flow of the fluid in a backward direction and does not fully open upon application of the fluid pressure in a forward direction.

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